REMARKS

Reconsideration of the present application is respectfully requested.

Claim 1:

Claim 1 has been amended to recite that the wedging device is attached "directly" to the holder. For example, the wedging screw 70 is attached by threads 74 directly to the tool body 12 (see pg. 15, lines 13-15). In contrast, Bastek's wedging screw 37 is connected directly to the pin or sleeve 32 (not to the holder). As pointed out in paragraph no 4 of the present application,

> [t]he stop pin [of Bastek] is force fitted into the tool body and the screw engages an internal thread of the pin to draw the tapered head into the conical internal passage of the stop pin. Because the screw engages the pin, and not the tool body, the pin must be retained in the tool body by a force fit or other means independent of the screw. One drawback of this device is that as the screw is advanced in the pin, rotations and linear forces are exerted on the stop pin which over time can degrade the force fit. (emphasis added)

That problem is avoided by the direct connection of the wedging device to the holder as recited in claim 1. Accordingly, it is submitted that claim 1 distinguishes patentably over Bastek.

Claim 20:

Independent claim 20 recites, in step A, that the sleeve includes a first portion that engages the cutting insert, and a second portion that engages a wall of the cavity (e.g., in Fig. 5A see the first and second portions 58, 56, respectively). Step C has been amended to recite that the tightening of the wedging device is performed "while said second portion of said peripheral surface engages said wall." Hence, the sleeve is stabilized against the wall and all displacement of the sleeve's peripheral surface is transmitted to the insert, whereby the adjustment of the insert is relatively precise. In contrast, Bastek's sleeve 32 only contacts the wall 45 of the holder after the adjustment of the insert has been completed. In particular, Bastek discloses that

> [t]he width of the second region 45 of the stepped bore is made such that the outer surface 33 of the pin head 44 lies against the wall of the bore when the expansion reaches the elastic limit. Further expansion is thereby prevented. (Bastek, column 3, lines 31-35)

Therefore, Bastek teaches to avoid adjustment of the insert when the second portion of the sleeve's outer periphery engages the cavity wall, whereby the sleeve will not be stabilized, which is directly contrary to the presently claimed invention.

Furthermore, claim 20 recites that a wedging surface contacts both the tapered portion and the opposing cylindrical portion of the hole. Accordingly, the portion of the sleeve containing the cylindrical portion will not be displaced by the wedging surface (see page 13, lines 6-10 of the application). There is no such feature disclosed by Bastek.

Accordingly, it is submitted that claim 20 distinguishes patentably over Bastek.

Claim 27:

Claim 27 recites that the sleeve has opposite first and second ends, having respective first and second pairs of oppositely disposed slots, e.g., see the first pair of slots (upwardly open) and the second pair of slots (downwardly open) in Fig. 8B. In the sentence bridging pages 8 and 9 of the Official Action, it is suggested (incorrectly) that Bastek discloses first and second pairs of slots. However, in the last three lines of page 7, the Official Action correctly notes (with reference to claim 23) that Bastek does not disclose slots in the bottom end of the sleeve. Bastek only discloses a single pair of slots 47, which are formed in the same (upper) end of the sleeve.

On page 8, lines 2-3 of the Official Action, it is stated that "Applicant has not disclosed that having a bottom slot arrangement provides an advantage, is used for a particular purpose, or solves a stated problem. In that regard, attention is directed to the last full paragraph on page 12 of the previous response which states:

> As the screw [of Bastek] is advanced, the slotted end of the sleeve is expanded by the tapered head of the screw. The greatest expansion occurs at the top of the sleeve and progressively decreases along the length of the sleeve to the end of the slot, where expansion is essentially prevented by the solid nature of the sleeve. The asymmetrical expansion of the sleeve (greater at the top than at the bottom) results in a point contact occurring between the sleeve and the cutting insert, which can cause the insert to rotate in its pocket, rather than to slide linearly.

That disadvantages is obviated by the invention defined by clam 27 as pointed out on page 14, first full paragraph of the previous amendment.

> In that regard, attention is directed to Fig. 8B wherein it can be visualized that when the left side of the sleeve is expanded to the left by an adjusting screw, that left side tends to rotate counter-clockwise about a fulcrum defined by the closed ends of the two left-handed slot portions 54. However, the portion of the sleeve possessing those slots is itself rotatable clockwise about a fulcrum defined y the closed ends of the two right-hand slot portions. Thus, the left side of the sleeve exhibits two degrees of flexing, enabling that left side to expand substantially linearly, to maintain constant surface contact with the insert, rather than pivoting.

In other words, with reference to attached sketch A, the sleeve of Bastek, which has only one pair of slots, is spread apart by the screw 37 such that the right-hand portion 44 of the sleeve pivots about a fulcrum and thus makes point contact with the cutting insert 18 that can cause the insert to rotate, as shown somewhat exaggeratedly.

In contrast, the sleeve according to the present invention exhibits a multi-flexing action about two fulcrums, as shown in attached Sketch B, wherein the sleeve can remain in surface contact with the cutting insert, thereby avoiding rotation of the cutting insert. That feature is neither disclosed nor taught by Bastek. Accordingly, it is submitted that claims 27 and 23 distinguish patentably over Bastek.

Claim 32:

Claim 32, like claim 20, recites that the hole of the sleeve has tapered and cylindrical portions. Also, claim 20 recites that the second portion of the external surface of the sleeve bears against the wall of the cavity and is stabilized while the first portion of the external surface adjusts the cutting insert. As explained above, Bastek discloses the opposite, i.e., that the adjustment stops as soon as the sleeve abuts the wall. Thus, it is submitted that claim 32 distinguishes patentably over Bastek for at least the same reasons as claim 20.

Attention is also directed to the fact that the assignee of the present application, Valenite, Inc. was recently purchased by Sandvik AB, a Swedish company, which also owns copending Application Serial No. 09/891,345 that discloses somewhat related subject matter. However, none of the claims of the present application is readable on the invention disclosed in the '345 application. The enclosed Information Disclosure Statement cites prior art made of record in the '345 application.

In light of the foregoing, it is submitted that the present application is in condition for allowance.

Respectfully submitted,

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Attachment to Amendment dated March 31, 2003
Marked Copy: Claims 1, 20, 23, 32 [As Amended]

1. (Twice Amended) A device for adjusting the position of a cutting insert adjustably secured in a pocket disposed in a holder, comprising:

a cavity in said holder, at least a portion of said cavity being contiguous with said pocket;

an intermediate component separate from said holder and disposed within said cavity, said intermediate component comprising an external peripheral surface and at least one expansion mechanism, said external peripheral surface engaging the insert at said contiguous portion; and

a wedging device movably attached **directly** to said holder and engaging the intermediate component such that actuation of the wedging device results in expansion of the intermediate component in a direction substantially parallel to a desired direction of adjustment of the insert.

20. (Twice Amended) A method for adjusting the position of an insert relative to a holder, wherein said ~~tool body~~ **holder** has a pocket having a floor and sides and a retaining device for adjustably securing the insert to said holder, comprising the steps of:

A) positioning an insert in said pocket in engagement with a sleeve; the sleeve including an end, an external peripheral surface and at least one expansion mechanism; ~~i.e.,~~ a hole extending through the end of the sleeve; the at least one expansion mechanism comprising generally aligned slot portions formed in the end and separated from one another by said hole; said external peripheral surface including a first portion engaging the insert, and a

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Marked Copy: Claims 1, 20, 23, 32 [As Amended]

second portion engaging a wall of said cavity disposed opposite said pocket, said slot portions disposed between said first and second portions of said external surface; said hole having a tapered portion disposed adjacent said first portion of said external surface, and ~~a~~ an opposing cylindrical portion disposed adjacent said second portion of said ~~eternal~~ externalsurface;

B) tightening the retaining device to ~~adjustably~~ secure the insert in the pocket; and

C) ~~inserting~~ tightening a wedging device ~~into~~ disposed in said hole, while said second portion of said peripheral surface engages said wall, causing a conical wedging surface of said wedging device to contact both said tapered portion and said cylindrical portion, whereupon said wedging device ~~exerting~~ exerts a wedging action against the tapered portion of the hole surface, thereby causing expansion of the first portion of the external surface, resulting in change of position of the insert.

23. (Amended) The device of claim 22 wherein said sleeve includes opposite ends through which said hole extends, ~~each of~~ said opposite ends including ~~a pair~~ respective first and second pairs of oppositely facing slots, defining said expansion mechanism, said slots of each ~~pair~~ of said first and second pairs being separated from one another by said hole, said first pair of slots offset from said second pair of slots as said sleeve is viewed along said center axis.

32. (Amended) A device for adjusting the position of a cutting insert disposed within a pocket of a holder comprising:

a retaining device in said holder for adjustably securing said insert;

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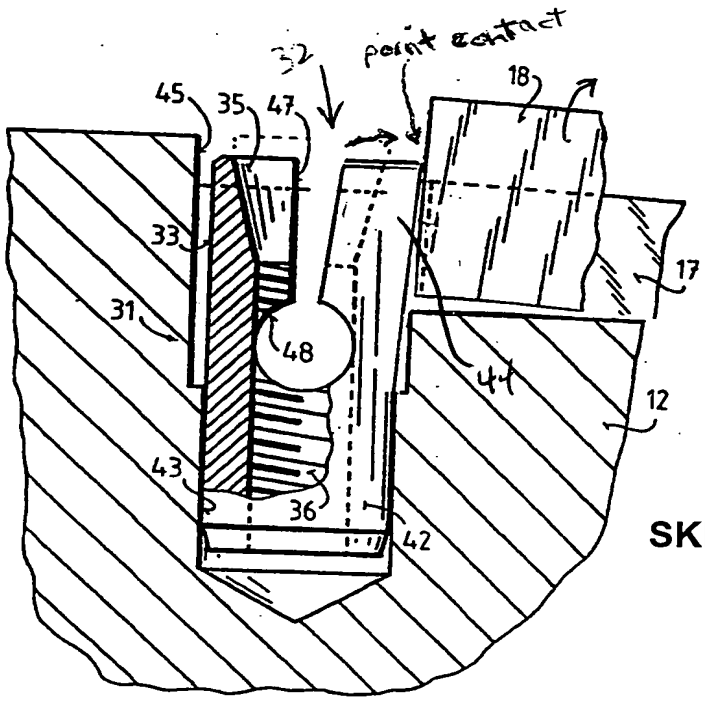
Marked Copy: Claims 1, 20, 23, 32 [As Amended]

a cavity formed in said holder and being at least partially contiguous with said pocket, said cavity including a wall situated opposite said pocket;

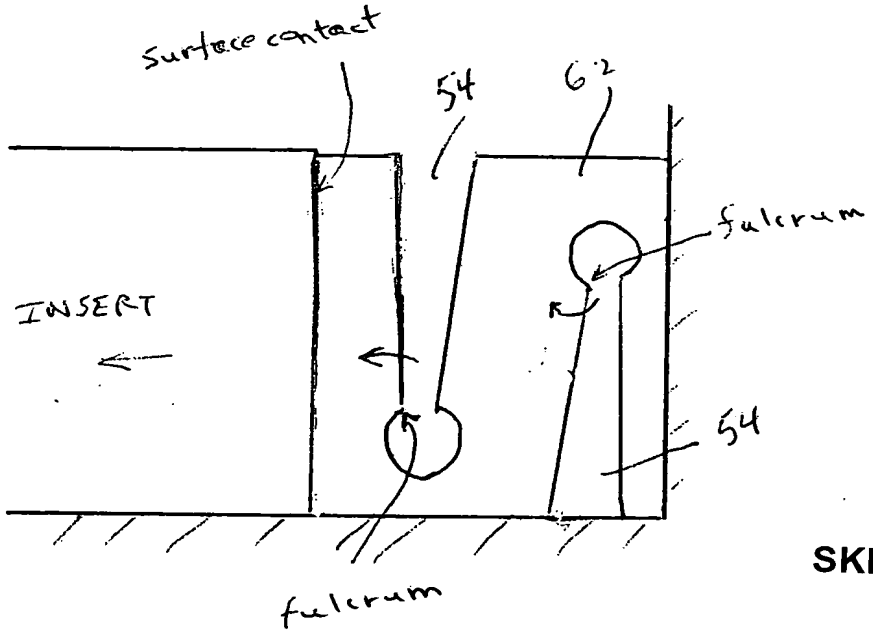
a sleeve disposed in said cavity and including opposite first and second ends and an external surface extending between said first and second sleeve ends, a hole disposed in said sleeve wherein a surface of said hole defines an internal surface of said sleeve, a first portion of said external surface defining a flexing flank surface for engaging said insert, a second portion of said external surface being situated diametrically opposite said first portion and facing said wall of said cavity, a first portion of said internal surface being situated adjacent said external flexing surface and being tapered with respect to a center axis of said hole, a second portion of said internal surface being situated diametrically opposite said first portion and being cylindrically shaped, at least one of said sleeve ends including a pair of oppositely disposed slots separated from one another by said hole, each slot extending from said external surface to said internal surface and positioned between said first and second portions of said internal surface; and

an adjustment screw including a wedge-shaped portion disposed in said hole and engaging said first portion of said internal surface, said screw being rotatable in a direction causing said sleeve to expand at said slots, wherein said second portion of said external surface bears against said wall of said cavity, and said first portion of said external surface is displaced toward said insert to adjustably displace said insert while said second portion of said external surface bears against said wall to stabilize the sleeve.

Attachment to Amendment dated March 31, 2003



SKETCH A



SKETCH B